

REMARKS/ARGUMENTS

1. Objection to the specification:

The disclosure is objected to because the term “display control 18” in paragraph 4 should be corrected to “display controller 18”.

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Response:

Paragraph 4 has been amended to change the term “display control 18” to become “display controller 18”. Acceptance of the corrected specification is respectfully requested.

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2. Rejection of claims 3-5 and 7-10 under 35 U.S.C. 112, first paragraph:

Claims 3-5 and 7-10 are rejected under 35 U.S.C. 112, first paragraph as failing to comply with the enablement requirement.

15 **Response:**

Paragraph [0032] of the specification has been amended to clarify the operation of the state machine 78. This amendment is supported in Figure 5, and no new matter has been added. The amended paragraph [0032] now states,
“Generally speaking, the state machine 78 is built by a plurality of flip-flops. As shown in Fig.5, after the state machine 78 enters the operational state 96, the state machine stays in the operational state 96 for holding the setting value SET.”

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Using flip-flops to built finite state machines is well known to those skilled in the art, and although paragraph [0032] does not describe the exact inter-connections needed in for the flip-flops, Figure 5 does clearly show the three states in the state machine 78. Therefore, the specification and figures enable one skilled in the art to make and use the invention including the state machine 78. As a result, the applicant believes that the subject matter of claims 3, 9, and 10 is described in the specification in such a way as to enable one skilled in the art to make and use the invention. Reconsideration of claims 3-5 and 7-10

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is respectfully requested.

3. Rejection of claims 1, 3-5, 7-10, and 19 under 35 U.S.C. 112, second paragraph:

5 Claims 1, 3-5, 7-10, and 19 are rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Response:

10 Claim 1 has been amended to clarify the claim language in the preamble, stating “A display controller for driving a monitor, the display controller comprising”. Therefore, the body of the claim specifically describes the components of the display controller, and not other parts of the monitor.

15 The applicant believes that the line indentations, use of semi-colons, and use of the word “and” clearly indicate which claimed elements are part of which structure. Therefore, the display controller comprises both a graphics chip and a converter. The converter comprises both a current mirror circuit and a voltage calibration circuit. The current mirror circuit comprises both a first current route and a plurality of second current routes. Therefore, the current mirror circuit
20 means the circuitry formed by the combination of transistors 82, 83a, 83b, and 83c shown in Figure 3.

25 Claims 1, 3, and 4 have been amended to change the term “reference display driving voltage” to become “reference driving voltage” in order to avoid confusion with the claimed term “display driving voltage”.

30 Claim 5 has been amended to change the term “a predetermined amount of mirror ratio setting units” to become “one or more of the plurality of mirror ratio setting units” in order to make the claim language clearer and more definite.

Claims 7 and 8 have been amended to change the term “the mirror ratio setting units” to become “the plurality of mirror ratio setting units” to make the claim clearer and more definite. Claim 8 has also been amended to change the term “a current mirror means” to become “the current mirror circuit” to indicate the same current mirror circuit recited in claim 1.

Claim 10 has been amended in two places to change the phrase “the state machine stays at” to become “the state machine is presently at” to clarify the claim language.

As a result of the above-indicated claim amendments, the applicant believes that all claims particularly point out and distinctly claim the subject matter which applicant regards as the invention. Reconsideration of claims 1, 3-5, 7-10, and 19 is therefore respectfully requested.

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4. Rejection of claims 1, 3-5, 7-10, and 19 under 35 U.S.C. 102(b) or 103(a):

Claims 1, 3-5, 7-10, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Dingwall (EP 780986); or, in the alternative, under 35 U.S.C. 103(a) as obvious over Dingwall (EP 780986) in view of Plus et al. (US 5,170,155).

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Response:

Applicant respectfully submits that independent claim 1 patently defines over Dingwall or Dingwall in view of Plus et al. for at least the reason that Dingwall fails to disclose, teach or suggest the features emphasized below:

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a plurality of second current routes electrically connected to the first current route for delivering a plurality of mirror currents to an output port of the converter to form the output current, wherein the plurality of mirror currents have magnitudes differing from each other by a factor of two, and the plurality of mirror currents add together to form the output current.

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In rejecting claim 1, the Office Action refers to Fig. 2 of Dingwall and Column 3, Line 13 – Column 7, Line 26 of the specification. Column 4 Lines 33-37 of Dingwall recites:

5 *“A control current I111 in transistor 111 controls a magnitude of a current I110 in each transistor 110 in a current mirror manner. **Each current I100 has the same magnitude and tracks each current I100 of the other transistors 110 of D/A converter 23**”* (Emphasis added).

10 Similarly, Column 7, Lines 22 – 26 of Dingwall recites:

*“At any intermediate value of word W the accuracy is maintained because, **in each D/A converter 23, currents i100 are equal to one another**. Each transistor of D/A converter 23 may be implemented using bipolar transistor technology”* (Emphasis added).

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As reflected above, Dingwall fails to disclose, teach or suggest “the plurality of mirror currents having magnitude differing from each other by a factor of two” as recited in claim 1. Moreover, Plus fails to cure the deficiency neither. Accordingly, Applicant respectfully submits that independent claim 1 patently
20 defines over Dingwall and the combination of Dingwall and Plus for at least the reason set forth above.

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Furthermore, claims 3-5, 7-10, and 19 are dependent on claim 1, and should be allowed if claim 1 is allowed. Reconsideration of claims 1, 3-5, 7-10, and 19 is therefore respectfully requested.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

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Sincerely yours,

/Winston Hsu/

Date: 03/26/2009

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10 Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)